

## REMARKS

Responsive to the objection to claim 4, claim 4 as amended by the Preliminary Amendment of September 8, 2004, filed with the request for entry into the national phase, is represented here with amendment of form to make it consistent with the language of the other claims of record.

### Product (Optical Fiber) Claims 1, 3-6 and 10

The rejection of the product claims 1, 3-6 and 10 for obviousness over Hideo et al is respectfully traversed. The Examiner characterizes Hideo et al as disclosing "an optical fiber having a core 5 made of silica glass free of germanium." The undersigned finds no teaching to the effect that the silica glass is free of germanium. Perhaps the Examiner relies upon the silence of Hideo et al with regard to germanium. The Examiner further states that "it would have been obvious to one of ordinary skill in the art to create a grating upon this fiber type in order to produce a variety of different components having a wide range of applications..." Assuming, *arguendo*, that the core of the fiber described by Hideo et al is "free of germanium," it is respectfully submitted that it would not have been obvious to those skilled in the art to form a grating in said core because, prior to the present invention, "it was impossible to fabricate gratings on a core made from silica glass free of germanium," quoting from the sentence spanning pages 2 and 3 of applicant's specification. The teachings in applicants' specification should be presumed correct unless the Examiner has some good reason for doubting their accuracy. A reference which does not teach how to make (or "enable") the invention as claimed will not support a holding of obviousness "unless there is some known or obvious way to make the thing or to carry out the process," quoting from In re

Collins, 174 USPQ 333 (CCPA 1972). Also see In re Hoeksema, 158 USPQ 596 (CCPA 1968).

Further, Hideo et al nowhere mention a grating and nowhere suggest that a grating could or should be formed in the core of the disclosed fiber.

Method claims 7, 9 and 11-13

The rejection of the method claims for obviousness over Hideo et al in view of Hammon et al is respectfully traversed. According to the Examiner, "Hammon et al discloses a method and apparatus for writing fiber gratings upon a photosensitive waveguide where two laser beams are coincident and interfering at location 45 to create a grating upon the fiber (Fig. 1, 4: 55-67, 5: 1-11)." It is respectfully submitted that Hammon et al nowhere disclose or suggest use of such coincident, interfering laser beams and, for this reason, the Examiner has not stated a *prima facie* case for obviousness. Within the teaching of Hammon et al cited by the Examiner, extending from line 55 of column 4 to line 11 of column 5, there is no disclosure of any laser beam, much less two laser beams which are both coincident and interfering. In point of fact, within that teaching cited by the Examiner, Hammon et al clearly describe beam 31 as a "UV beam" (column 4, line 63). Also see the references to the use of UV in the embodiments of Figs. 4, 5 and 7 of Hammon et al (column 5, lines 47 and 67 and column 6, lines 5 and 49). Further, Hammon et al describe their invention as an improvement of the system disclosed in international application no. PCT/AU96/00782 which is also described as using a "UV beam 31" (column 1, line 39 and column 2, lines 50 and 61).

It should also be noted that Hammon et al neither disclose nor suggest the formation of a grating by irradiating the fiber through a protective coating layer. While Hammon et al is silent on the point, as taught by applicants in the first full paragraph of page 3 of their specification, the prior art technique for forming a grating within a fiber required that a protective coating layer, if present, be removed prior to irradiation and that the fiber be recoated with the protective coating layer after formation of the grating.

#### Claim 8

In explaining the rejection of claim 8 the Examiner writes:

"It would have been obvious to one of ordinary skill in the art to combine the teachings of Dunn et al, Kashyap and Kazuaki et al in order to provide the fiber of Kashyap with a flat portion..."

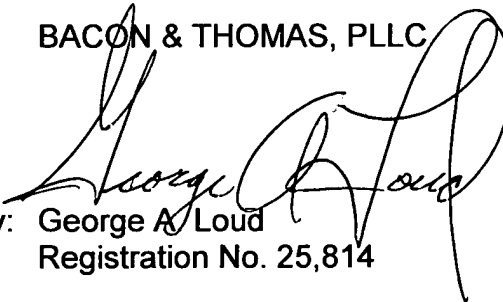
The Examiner's explanation of the rejection is not understood because the rejection is styled as based on the combination of Hideo et al, Hammon et al and Kazuaki. In other words, there is an inconsistency between the stated grounds for rejection of claim 8 and the explanation thereof.

In any event, assuming that the rejection is based on the combination of Hideo et al, Hammon et al and Kazuaki, it is traversed because Kazuaki et al is cited simply for a teaching of a fiber having a flat portion. Kazuaki nowhere mentions a grating and teaches and suggests nothing about formation of same in any fiber and, accordingly, Kazuaki can not be accurately described as suggesting irradiation of a flat portion of a fiber for any reason. Further, Kazuaki in no way cures the deficiencies of the basic combination of Hideo et al and Hammon et al noted above.

In conclusion, it is respectfully requested that the Examiner reconsider the rejections of record with a view of the present amendments and foregoing comments, with a view toward allowance of the claims as amended.

Respectfully submitted,

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